U.S. APPLN. NO.: 10/533,304

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1-5. canceled.

6. (currently amended): A level converting circuit for converting a signal level of a

first logic circuit to which a first power source is supplied into a signal level of a second logic

circuit to which a second power source is supplied, eharacterized by including comprising:

a pull-up and/or pull-down circuit in which the second power source is supplied to a level

conversion output of a level conversion core circuit,

a control circuit to which the second power source is supplied and which receives as

inputs thereto a level conversion input signal and the level conversion output signal,

and a switching circuit which is disposed between a power source terminal of the level

conversion core circuit and the second power source and which is controlled by a third 'logic

circuit, the third to logic circuit generating a control signal under control of the first power

source, wherein the control circuit is controlled by a control signal from the third 'logic circuit.

7. (currently amended): A level converting circuit in accordance with claim 6,

characterized in that wherein the third logic circuit controls the control circuit by a control signal

from the third logic circuit, and the control circuit produces control signals to control the pull-up

and/or pull-down circuit and the level conversion core circuit.

2

U.S. APPLN. NO.: 10/533,304

8-14. canceled.

15. (currently amended): A level converting circuit in accordance with claim 7,

characterized in that wherein the control circuit comprises a NAND circuit to which the second

power source is supplied and which receives as inputs thereto a positively inverted signal of the

level conversion input signal, an inverted signal of the level conversion output signal, a

positively inverted signal of the level conversion output signal, and a control output of the third

logic circuit, wherein an output signal of the NAND circuit is produced to control a signal.

16. (currently amended): A level converting circuit in accordance with claim 15,

characterized in that wherein the NAND circuit is of a CMOS circuit configuration and the p-

MOS transistor to which the level conversion input signal is connected includes a transistor at

least having a small ratio of a channel width/a channel length or a high threshold value.

17. (currently amended): A level converting circuit in accordance with claim 15,

characterized in that wherein the NAND circuit is of a CMOS circuit configuration and the n-

MOS transistor to which a control signal output of the third logic circuit is connected includes a

source terminal connected to a GND power source.

18. (canceled).

3

AMENDMENT ATTY DOCKET NO.: Q87822 U.S. APPLN. NO.: 10/533.304

19. (currently amended): A level converting circuit in accordance with claim 15, eharacterized in that wherein the pull-up and/or pull-down circuit further includes comprises at least two p-MOS p-MOSs each of which includes comprises a source terminal connected to the second power source and a gate terminal connected to a control signal from the control circuit, a drain terminal of other pMOS being connected to each of the level conversion outputs; and additionally at least two p-MOS p-MOSs each of which includes comprises a source terminal connected to the second power source and a gate terminal connected to a control signal from the third logic circuit, a drain terminal of other p-MOS being connected to each of the level conversion outputs.

- 20. (currently amended): A level converting circuit in accordance with claim 15, eharacterized in that wherein the pull-up and/or pull-down circuit further includes comprises at least two p-MOS p-MOSs each of which includes comprises a source terminal connected to the second power source, a gate terminal connected to a control signal from the control circuit, and a drain terminal connected to each of the level conversion outputs; and additionally a p-MOS including comprising a source terminal connected to the second power source, a gate terminal connected to a control signal from the third logic circuit, and a drain terminal connected to one of the level conversion outputs.
- 21. (currently amended): A level converting circuit in accordance with claim 15, eharacterized in that wherein the pull-up and/or pull-down circuit includes comprises at least two p-NIOS p-MOSs each of which includes comprises a source terminal connected to the second

U.S. APPLN. NO.: 10/533,304

power source, a gate terminal connected to a control signal from the control circuit, and a drain terminal connected to each of the level conversion outputs: additionally a p-MOS including comprising a source terminal connected to the second power source, a gate terminal connected to a control signal from the third logic circuit, and a drain terminal connected to one of the level conversion outputs; and

additionally an n-MOS including a source terminal connected to the GND power source, a gate terminal connected to a control signal from the third logic circuit or to an inverted signal of the control signal, and a drain terminal connected to other one of the level conversion outputs.

- 22. (currently amended): A level shifter in accordance with claim 18 15, eharacterized in that wherein the pull-up and/or pull-down circuit includes comprises at least two p-MOSs each of which includes comprises a source terminal connected to the second power source, a gate terminal connected to a control signal from the control circuit, and a drain terminal connected to each of the level shift outputs; and additionally an n-MOS including comprising a source terminal connected to the GND power source, a gate terminal connected to a control signal from the third logic circuit or an inverted signal of the control signal, and a drain terminal connected to one of the level shift outputs.
 - 23. canceled.
- 24. (currently amended): A level shifter in accordance with claim 18 15, eharacterized in that wherein the pull-up and/or pull-down circuit includes comprises at least two

ATTY DOCKET NO.: Q87822

AMENDMENT U.S. APPLN. NO.: 10/533,304

n-MOSs each of which includes comprises a source terminal connected to the GND power source, a gate terminal connected to a control signal from the control circuit, and a drain terminal connected to the level shift outputs and additionally at least two p-MOSs each of which includes comprises a source terminal connected to the second power source and a gate terminal connected to a control signal from the third logic circuit, a drain terminal of other p-MOS being connected to each of the level shift outputs.

25-66. canceled.

- 67. (new): A level converting circuit in accordance with claim 6, further comprising a switch circuit disposed between a GND terminal and a GND power source of the level conversion core circuit.
- 68. (new): A level converting circuit for converting a signal level of a first logic circuit to which a first power source is supplied into a signal level of a second logic circuit to which a second power source is supplied, comprising:

a level conversion core circuit in which the second power source is supplied and which receives as an input a level conversion input signal and which outputs a level conversion output signal;

a control circuit to which the second power source is supplied and which receives a control signal from a third logic circuit and which outputs control signals; and

U.S. APPLN. NO.: 10/533,304

pull-up and/or pull-down circuit in which the second power source is supplied and which receives the control signals from the control circuit and a control signal from the third logic circuit and which connects an output to a level shift output.